STATE FOREST LAND
ENVIRONMENTAL CHECKLIST

Purpose of Checklist:

The State Environmental Policy Act (SEPA), chapter 43.21C RCW, requires all governmental agencies to consider the environmental impacts of a proposal before making decisions. An environmental impact statement (EIS) must be prepared for all proposals with probable significant adverse impacts on the quality of the environment. The purpose of this checklist is to provide information to help you and the agency identify impacts from your proposal (and to reduce or avoid impacts from the proposal, if it can be done) and to help the agency decided whether an EIS is required.

Instructions for Applicants:

This environmental checklist asks you to describe some basic information about your proposal. Governmental agencies use this checklist to determine whether the environmental impacts of your proposal are significant, requiring preparation of an EIS. Answer the questions briefly, with the most precise information known, or give the best description you can. *Questions in italics are supplemental to Ecology's standard environmental checklist. They have been added by the DNR to assist in the review of state forest land proposals. Adjacency and landscape/ watershed-administrative-unit (WAU) maps for this proposal are available on the DNR internet website at http://www.dnr.wa.gov under "SEPA Center." These maps may also be reviewed at the DNR regional office responsible for the proposal. This checklist is to be used for SEPA evaluation of state forest land activities.*

You must answer each question accurately and carefully, to the best of your knowledge. In most cases, you should be able to answer the questions from your own observations or project plans without the need to hire experts. If you really do not know the answer, or if a question does not apply to your proposal, write "do not know" or "does not apply." Complete answers to the questions now may avoid unnecessary delays later. *All of the questions are intended to address the complete proposal as described by your response to question A-11. The proposal acres in question A-11 may cover a larger area than the forest practice application acres, or the actual timber sale acres.*

Some questions ask about governmental regulations, such as zoning, shoreline, and landmark designations. Answer these questions if you can. If you have problems, the governmental agencies can assist you.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

Use of checklist for nonproject proposals:

Complete this checklist for nonproject proposals, even though questions may be answered " does not apply." IN ADDITION, complete the SUPPLEMENTAL SHEET FOR NON PROJECT ACTIONS (part D).

For nonproject actions, the references in the checklist to the words "project," "applicant," and "property or site" should be read as "proposal," "proposer" and "affected geographic area," respectively.

A. BACKGROUND

1. Name of proposed project, if applicable:

   Timber Sale Name: **UMBER** *Agreement #:* **30-085237**

2. Name of applicant: **Washington State Department of Natural Resources**

3. Address and phone number of applicant and contact person:
   Pacific Cascade Region
   PO Box 280
   Castle Rock, WA 98611-0280
   Phone: (360) 577-2025
   Contact Person: Marcus Johns

4. Date checklist prepared: **11/18/2009**

5. Agency requesting checklist: **Washington State Department of Natural Resources**

6. Proposed timing or schedule (including phasing, if applicable):

   a. *Auction Date:* **October 28, 2010**
   b. *Planned contract end date (but may be extended):* **October 31, 2011**
   c. *Phasing:* **None**

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.

   Yes.

   Timber Sale

   a. *Site preparation:*

      Site prep may be used to ensure that planting can be achieved at acceptable stocking levels to meet or exceed Forest Practice standards following harvest.

   b. *Regeneration Method:*

      The units will be hand planted following harvest. Some natural regeneration is expected.

   c. *Vegetation Management:*

      Possible treatments could occur following harvest. Treatments will be based on vegetative competition, and will ensure a free-to-grow status that complies with Forest Practices standards.

d. *Thinning:*

Pre-commercial thinning needs will be assessed at approximately 15 years of age. Commercial thinning potential will be assessed at approximately 25 years of age. Thinning will be done as needed to meet desired density, stocking, species diversity, and growth.

Roads: **Road maintenance assessments will be conducted and may include periodic ditch and culvert cleanout, and grading as necessary. Construction, reconstruction, pre-haul maintenance, and abandonment are associated with forest management activities.**

Rock Pits and/or Sale: **Vantage Quarry will be used for future road construction activities associated with forest management operations.**

Other: **Landing slash piles may be burned following harvest activities or salvaged as firewood or biofuels. Firewood permits for the sale area may be issued to the public after timber harvest activities are completed.**

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.

☒ *303 (d) – listed water body in WAU:* ☐ *temp* ☐ *sediment* ☒ *completed TMDL (total maximum daily load):* **Cedar Creek in the Upper Chehalis/Cedar Creek WAU; identified by DOE at their web site** (http://apps.ecy.wa.gov/wqawa/viewer.htm).
☐ *Landscape plan:*
☐ *Watershed analysis:*
☐ *Interdisciplinary team (ID Team) report:*
☒ *Road design plan:* **Available at the Pacific Cascade Region Office.**
☒ *Wildlife report:* **Available at the Pacific Cascade Region Office.**
☐ *Geotechnical report:*
☐ *Other specialist report(s):*
☐ *Memorandum of understanding (sportsmen's groups, neighborhood associations, tribes, etc.):*
☒ *Rock pit plan:* **Available at the Pacific Cascade Region Office.**
☒ *Other:* **Spotted Owl Habitat Mapping; Forest Practices Activity Maps; WAU Map for Rain-On-Snow areas; Policy for Sustainable Forests (PSF 2006); State Soil Survey; Habitat Conservation Plan (HCP 1997); HCP Checklist; Riparian Forest Restoration Strategy (RFRS); ESA listed Salmonid Species Map from Forest Practices, dated 1999; Planning and Tracking Reports and associated maps; Road Maintenance and Abandonment Plan (RMAP): #2502154 and 2502159. The following documents are all generated by DNR GIS databases: Weighted Old Growth Habitat Index (WOGHI); South Coast Planning Unit Marbled Murrelet Habitat Reclassification Map (1999); and USGS and GLO maps.**

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.

None known.

10. List any government approvals or permits that will be needed for your proposal, if known.

☒ *HPA:* **(10-year blanket HPA for tailholds; Control # 103081-1)** ☒ *Burning permit* **(If piles are burned)**
☐ *Shoreline permit* ☒ *Incidental take permit:* **1168 and PRT812521** ☒ *FPA #***2920878**
☐ *Other:*

11. Give brief, complete description of our proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include specific information on project description.)

a. *Complete proposal description:*

This proposal is a variable retention timber harvest that will occur under the guidelines of the DNR State Lands HCP and the PSF. The proposal includes the following elements:

- **Riparian Management Zones (RMZs)**
- **Leave Trees**
- **Optional Construction and Pre-Haul Maintenance**
- **Aesthetics**
- **Ground-based and cable harvest methods**
- **Rock will be removed from the Vantage Quarry**

Unit	Proposal Acres	RMZ/WMZ Acres	Unstable Slope Acres	Existing Road Acres	Sale Acres	Leave Tree Acres	Harvest Acres
name	*gross*			*within unit*		*clumped acres*	*net*
1	35	11	0	0	24	2	22
2	54	14	0	2	40	4	34
3	42	17	1*	0	25	3	22
4	58	23	0.1**	0	35	2	33
Totals	189	65	0	2	124	11	111

*This is not a Forest Practices Rule Defined Feature; it is an area susceptible to erosion (see B.1.d.1). It is bounded out of the harvest area with leave tree area tags. Acres were not deducted from the Sale Acres or Harvest Acres since they were included in the Leave Tree Acres.
**This area is located within the RMZ buffer and therefore has been excluded from the sale area. Acres were not deducted from the Sale Acres or Harvest Acres since they were included in the RMZ Acres.

b. *Timber stand description pre-harvest (include major timber species and origin date), type of harvest, overall unit objectives.*

Pre-harvest:

Unit	Age	Species Composition
1	85-years-old	**Overstory:** Douglas-fir, western hemlock, western redcedar, red alder, bigleaf maple. **Understory:** swordfern, Oregon grape, salal, vine maple.
2	69-years-old	**Overstory:** Douglas-fir, western hemlock, western redcedar, red alder and bigleaf maple **Understory:** swordfern, Oregon grape, salal, vine maple, salmonberry, devil's club.
3	73-years-old	**Overstory:** Douglas-fir, red alder, bigleaf maple, western hemlock, western redcedar. **Understory:** swordfern, Oregon grape, salal, vine maple, salmonberry, devil's club.
4	69-years-old	**Overstory:** Douglas-fir, western hemlock, western redcedar, red alder, bigleaf maple. **Understory:** swordfern, Oregon grape, salal, vine maple, devil's club.

Type of Harvest: **This proposal is a variable retention harvest of 111 net harvest acres in four units.**

Overall Unit Objectives: **The objective of this proposal is to produce revenue for the State Forest Board Purchase Trust (02) and Common School Trust (03) through the production of saw logs, poles, and pulp material while manipulating the stand to maintain wildlife and aquatic habitat by developing vertical stand structure and age class distribution in the future stand.**

c. *Road activity summary. See also forest practice application (FPA) for maps and more details.*

Type of Activity	How Many	Length (feet) (Estimated)	Acres (Estimated)	Fish Barrier Removals (#)
Construction		**4,654**	**2**	0
Reconstruction		0		0
Abandonment		0	0	0
Bridge Install/Replace	0			0
Culvert Install/Replace (fish)	0			0
Culvert Install/Replace (no fish)	0			

12. Location of proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist. *(See timber sale map available at DNR region office, and/or color landscape/WAU map on the DNR website http://www.dnr.wa.gov under "SEPA Center.")*

a. Legal description:

Unit 1 is located in portions of Section 17 and 20 of Township 16 North, Range 04 West, W.M.

Unit 2 is located in portions of Section 5 of Township 16 North, Range 04 West, and Section 32 of Township 17 North, Range 04 West, W.M.

Unit 3 is located in portions of Section 32 and 33 of Township 17 North, Range 04 West, W.M.

Unit 4 is located in portions of Section 7 of Township 16 North, Range 04 West, W.M.

Vantage Quarry is located in portions of Section 22 of Township 16 North, Range 04 West, W.M.

b. *Distance and direction from nearest town (include road names):*

Unit 1 is located approximately 7 miles by road north of Oakville, Washington following SR-12 to the D-Line, to the E-Line and E-2040 forest roads.

Unit 4 is located approximately 6 miles by road north of Oakville, Washington following SR-12 to the D-Line and D-1000 forest roads.

Unit 2 is located approximately 3 miles north of Unit 4 continuing along the D-1000 forest road; and Unit 3 is another mile north of Unit 2.

Vantage Quarry is located approximately 9 miles by road north of Oakville, Washington following SR-12 to the D-Line, to the E-Line and E-3020 forest roads.

c. *Identify the watershed administrative unit (WAU), the WAU Sub-basin(s), and acres. (See also landscape/WAU map on DNR website http://www.dnr.wa.gov under " SEPA Center.")*

WAU Name	WAU/Sub-Basin Acres	Proposal Acres
Upper Chehalis/Cedar Creek	26228.5	
Sub-Basin #3	1813.7	42
Sub-Basin #4	2626.0	54
Sub-Basin #7	6436.0	58
Sub-Basin #8	6051.3	35

13. *Discuss any known future activities not associated with this proposal that may result in a cumulative change in the environment when combined with the past and current proposal(s). (See digital ortho-photos for WAU and adjacency maps on DNR website http://www.dnr.wa.gov under "SEPA Center" for a broader landscape perspective.)*

This proposal is located within the Upper Chehalis/Cedar Creek WAU in the DNR's Capitol State Forest.

In the Upper Chehalis/Cedar Creek WAU, the uplands are mainly managed for timber production. Ownership includes small private landowners and DNR managed forests. Approximately 94% of the Upper Chehalis/Cedar Creek WAU is DNR

managed forestland with the remaining 6% consisting of a mix of private forestland and farmland. The privately-owned areas lie on the southwestern portions of the Upper Chehalis/Cedar Creek WAU. Forest stands within the WAU appear to be almost exclusively second and third growth stands. The number of currently active and recently expired Forest Practice Applications shown on the WAU map (referenced on the above DNR website) along with personal observations within the WAU indicates the forests appear to be managed for production of wood products. Management includes regeneration harvest, thinning, and partial cuts.

The following table is an estimated summary of past and future activity on DNR-managed land and privately managed land in the WAU (information is based on Forest Practices applications that have been approved in the last seven years as of November 18, 2009 compiled by the Department's GIS database). No attempt was made to predict future timber harvest on other ownerships within the WAU. The source of this information only provided the acreage at the WAU level. This information is derived from activity locations collected by varying methods ranging from hand drawn maps to precise GPS collection. No verification of map accuracy or activity completion is conducted. Totals may not be the sum of all harvest types due to overlapping activities. The same land may be counted more than once if, in the past seven years, more than one Forest Practice application has been approved for different harvests (salvage and even age for example).

Upper Chehalis/Cedar Creek WAU	WAU ACRES/SUB-BASIN ACRES	ACRES OF EVEN-AGED HARVEST WITHIN THE LAST SEVEN YEARS	ACRES OF UNEVEN-AGED HARVEST WITHIN THE LAST SEVEN YEARS	PROPOSED ACRES OF EVEN-AGED HARVEST IN THE FUTURE	PROPOSED ACRES OF UNEVEN-AGED HARVEST IN THE FUTURE
DNR MANAGED LAND	24,559	620	0	111	0
OTHER OWNERSHIP	1,670	85	0	Unknown	Unknown
TOTAL	26,229	705	0	111	0

NOTE: All acreages are approximate. Rounding to the nearest 10 or even to the nearest 50 acres may be appropriate. Proposed future acres are uncertain. The acreages on DNR land represent a likely harvest strategy for the remainder of the current fiscal year.

Normally, there are few significant changes associated with peak flows in the WAU or sub-basins. However, in the winters of 2007 and 2009, two 100-year plus events occurred. The rainstorms set rainfall and flood level records in Southwest Washington. The events caused many shallow mass-wasting events. Many stream channels were altered in this event due to extremely high stream flows with accompanying sediment loads and possibly large woody debris delivery. The full extent of this is not known.

Logging operations will be conducted in such a manner as to avoid severe ground disturbance. RMZs, leave trees and the 30-foot Equipment Limitation Zone on the type 5 streams will help limit ground disturbance, provide filtration, and protect stream integrity. Lead end suspension will be required on all cable settings. Ground based yarding may be suspended during saturated soil conditions, especially in areas where yarding, slope stability, or soil erosion could impact water quality. Operations shall be suspended and sediment control devices required, when necessary, to minimize sediment delivery to streams. RMZs will be left to protect water quality, maintain stream integrity, and maintain slope stability, on the type 1, type 3 and type 4 streams (see B.3.a.1.b.). The units will be planted upon completion of logging.

In the Upper Chehalis/Cedar Creek WAU, 303(d) water was identified from data provided by DOE (http://apps.ecy.wa.gov/wqawa/viewer.htm). A portion of Cedar Creek is listed as a TMDL water, however due to distance from the proposal area (approximately 2.6 miles downstream) and mitigation measures in this proposal, there should be no impact to the listed water.

The DNR has an HCP agreement with the federal government concerning threatened and endangered species and their habitats, which requires the Department to manage landscapes to provide and sustain long-term habitat quality. This agreement substantially helps the Department to mitigate for harmful cumulative effects related to management activities. The HCP was designed to protect and improve fish and wildlife species and their habitats over a broad regional area. The applicable HCP strategies incorporated into this proposal are as follows:

- Retaining Riparian Management Zones (RMZs) at least 200 feet wide along Cedar Creek, a type 1 stream. RMZs average 192 feet wide along five type 3 streams. RMZs are at least 100 feet wide along eight type 4 streams. All RMZs are measured from the outer edge of 100-year floodplain. Retaining RMZs to protect water quality, stream bank integrity stream temperatures and provide down woody debris. RMZs will develop older forest characteristics that, in combination with other strategies, will help support older forest dependant wildlife populations.
- An Equipment Limitation Zone (ELZ), a 30 foot wide strip measured from the ordinary high water mark, on twelve type 5 streams located within and adjacent to the proposed units will minimize the possibility of sediment delivery and loss of stream function.
- This proposal is located within the range of potential Bull Trout habitat. However, Bull Trout habitat is protected under the Department of Natural Resources HCP's Riparian Strategies and due to RMZs this proposal should have a minimal cumulative effect on the Bull Trout habitat.
- Retaining a minimum of 8 trees per acre (greater than 10 inches Diameter at Breast Height) clumped and scattered throughout the units.
- Evaluating the proposal for potential slope instability, and excluding a 0.1 acre recent shallow rapid slump within the RMZ of Unit 4, and bounding out an old shallow rapid slope failure (about 1 acres in size) with leave tree area tags in Unit 3.
- Analyzing, designing, and constructing roads to minimize affects on the environment.

This proposal will have an impact on the aesthetics in the general vicinity. It will change from a stand of mature timber to a recent harvest with RMZs adjacent to the type 1, 3 and 4 streams and scattered leave tree clumps throughout. This proposal is aligned with the land usage of 94% of the Upper Chehalis/Cedar Creek WAU and should have minimal cumulative effect on aesthetics. The strategy of retaining 8 trees per acre (greater than 10 inches Diameter at Breast Height) in the unit should provide legacy elements for recruitment of future snags, coarse woody debris, multi-layered stands, and large diameter trees. In combination, these features will provide elements of older forest habitat characteristics within the new plantation.

After harvest, tree seedlings will be planted to compliment natural regeneration that is expected to occur. Native plants such as grasses, ferns, salal, salmonberry and huckleberry will remain on site within the leave tree clumps. Most of the other vegetation will begin to reestablish in two to three years after a chemical site prep which may be used to help establish the planted tree species.

To reduce the risk of potential erosion, road cut banks may be re-vegetated with native grass seed prior to the onset of wet weather to prevent sediment delivery and maintain soil stability.

A regular maintenance schedule will be followed to allow for proper road surface run-off and drainage. Haul routes for this proposal have been evaluated for potential environmental impacts. To assure sediment is controlled during hauling, crossdrains, sediment ponds, and other structures will be used to disconnect ditch water from flowing streams. Road ditch water will be routed to the forest floor for filtering prior to entering flowing watercourses. New road construction will be located on stable locations. Road system analysis and design required under the HCP and analysis required under the Forest Practices RMAP process in the Capitol State Forest was completed and approved.

B. ENVIRONMENTAL ELEMENTS

1. Earth

a. General description of the site (check one):

☐Flat, ☐Rolling, ☒Hilly, ☐Steep Slopes, ☐Mountainous, ☐Other:

1) General description of the WAU or sub-basin(s) (landforms, climate, elevations, and forest vegetation zone).

The Upper Chehalis/Cedar Creek WAU ranges from approximately 35 to 2,657 feet in elevation and generally consists of hilly topography with moderate to steep slopes. The WAU receives approximately 50 to 60 inches of precipitation annually, the majority of which falls as rain. The primary timber type is Douglas-fir with red alder dominating the draws and lowlands. Secondary species include bigleaf maple, western redcedar and western hemlock. The WAU is located in the western hemlock vegetation zone.

2) Identify any difference between the proposal location and the general description of the WAU or sub-basin(s).

The vicinity of the proposal matches the general description of the WAU.

b. What is the steepest slope on the site (approximate percent slope)?

The steepest slope is 80%.

c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any prime farmland. ***Note: The following table is created from state soil survey data. It is a roll-up of general soils information for the soils found in the entire sale area. It is only one of several site assessment tools used in conjunction with actual site inspections for slope stability concerns or erosion potential. The state soil survey is a compilation of various surveys with different standards.***

State Soil Survey #	Soil Texture or Soil Complex Name
5670	CLAY LOAM
6638	SILT LOAM
6640	SILT LOAM
0664	SILT LOAM
0577	SILT LOAM
6639	SILT LOAM

Overall, the steepest slopes in the proposal area are 65%, though slopes as steep as 90% may exist over short (less than 50') distances.

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.

Yes.

1) Surface indications:

There are minor indications of surface movement within and adjacent to Units 3 and 4. These include an old shallow rapid slope failure within Unit 3, and a more recent shallow rapid slump located within an RMZ of Unit 4.

A DNR geologist was brought out to the site to identify any potentially unstable areas. The geologist determined the 1 acre old shallow rapid slope failure in Unit 3 would be susceptible to additional erosion if timber was yarded through the area. The geologist recommended this area be bounded out of the harvest area. Neither of these areas are Forest Practices Rule Identified Features.

2) Is there evidence of natural slope failures in the sub-basin(s)?
☐*No* ☒*Yes, type of failures (shallow vs. deep-seated) and failure site characteristics:*

There is evidence of slope failures within the sub-basins. These are generally associated with slopes greater than 70% within convergent landforms such as bedrock hollows and inner gorges. These landforms, per local knowledge, typically occur within the RMZs, lower slopes of the main draws, and on headwalls at the top of steep draws.

3) Are there slope failures in the sub-basin(s) associated with timber harvest activities or roads?
☐*No* ☒*Yes, type of failures (shallow vs. deep-seated) and failure site characteristics:*
Associated management activity:

There is evidence of small slope failures within the sub-basins and some shallow-rapid side cast failures associated with roads have occurred, mostly where roads were constructed prior to the Forest Practices Act and where roads utilizing side-cast construction techniques are located mid-slope on steep side slopes.

Just west of Unit 4, there is a small slope failure at the top of a small draw along the edge of the timber. Also there are multiple slumps along the cutbank of the D-1000 road. These occurred during the 2007 storm.

4) *Is the proposed site similar to sites where slope failures have occurred previously in the sub-basin(s)?*
☐*No* ☒*Yes, describe similarities between the conditions and activitie on these sites:*

The proposal area contains midslope shallow rapid slope failures and lower slope shallow rapid slumps associated with streams. Similar features can be found elsewhere in the sub-basins and are also associated with streams and/or the storms of 1996, 2007, and 2009 when southwest Washington experienced extrodinarly high amounts of precipitation.

5) *Describe any slope stability protection measures (including sale boundary location, road, and harvest system decisions) incorporated into this proposal.*

Even though there were no Forest Practices Rule Identified Features, the following additional protection was applied as follows:

- **In Unit 3, south of the type 4 RMZ in the middle of the unit, an area found to be a potential hazard was excluded from the sale area with "Leave Tree Area" tags. In Unit 4, an area found to be a potential hazard is located within the type 1 RMZ, thus it is bounded out of the sale area with "Timber Sale Boundary" tags.**
- **Proposed roads were designed and placed in the best possible location to avoid impact to the excluded sale areas. Roads will be constructed during dry weather conditions. Cross-drains and ditchouts were placed to minimize the potential for mass wasting and slope failures associated with poor drainage.**
- **Shovel logging will generally occur only on slopes less than 35% and may be seasonally restricted.**
- **RMZ's along the type 1, 3 and 4 streams and 30-foot Equipment Limitation Zones along type 5 streams protect the steeper slopes that are generally found adjacent to streams.**

e. Describe the purpose, type, and approximate quantities of any filling or grading proposed. Indicate source of fill.
Approx. acreage new roads: **2** *Approx. acreage new landings:* **4** *Approx. cubic yards of fill:* **0**
Fill source: **none**

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.

Some erosion could occur as a result of building new roads, installing culverts and hauling timber.

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)? *Approximate percent of proposal in permanent road running surface (includes gravel roads):*

Approximately 1.8% of the site will be covered with gravel road at the completion of the harvest.

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:
(Include protection measures for minimizing compaction or rutting.)

Erosion control and reduction measures are addressed in the sale layout and harvest system design.
- **The no cut buffers on the RMZs will function to protect streams from sediment delivery.**
- **Harvested areas will be replanted with coniferous tree species to reestablish root bound soils.**
- **The proposal will be harvested utilizing ground-based harvesting and cable harvesting methods with lead end suspension to reduce soil disturbance.**
- **Ground-based harvesting will generally occur only on slopes measuring less than 35%.**
- **Roads were located on ridge-tops when possible.**
- **Construction on side slopes over 45% will require full bench excavation with end haul.**
- **Roads will be constructed with cross-drains and ditchouts to ensure drainage.**
- **Areas of soil exposed through road construction may be grass seeded.**
- **Skid trails may be water barred post harvest.**

2. Air

a. What types of emissions to the air would result from the proposal (i.e., dust *from truck traffic, rock mining, crushing or hauling*, automobile, odors, industrial wood smoke) during construction and when the project is completed? If any, generally describe and give approximate quantities if known.

Minor amounts of engine exhaust from logging and road construction equipment and dust from vehicle traffic on roads will be emitted. If landing debris is burned after harvest is completed, wood smoke will be generated. There will be no emissions once the burning is complete.

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

None known.

c. Proposed measures to reduce or control emissions or other impacts to air, if any:

If landing debris is burned, it will be in accordance with Washington State's Smoke Management Plan. A burn permit will be obtained before burning occurs.

3. Water

a. Surface Water:

1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into. *(See timber sale map available at DNR region office, or forest practice application base maps.)*

Yes.

a) Downstream water bodies:

North Creek and Shelton Creek flow into Cedar Creek, which flows into the Chehalis River and then into Grays Harbor.

b) Complete the following riparian & wetland management zone table:

Wetland, Stream, Lake, Pond, or Saltwater Name (if any)	Water Type	Number (how many?)	Avg RMZ/WMZ Width in Feet (per side for streams)
Cedar Creek	**1**	**1**	**200**
North Creek, Unnamed Streams	**3**	**6**	**192**
Unnamed Stream	**4**	**8**	**100**
Unnamed Stream	**5**	**13**	**N/A**

c) List RMZ/WMZ protection measures including silvicultural prescriptions, road-related RMZ/WMZ protection measures, and wind buffers.

Leave trees were placed around portions of type 5 streams and in addition, will be protected by a 30-foot Equipment Limitation Zone. RMZs are no harvest buffers. Local knowledge of prevailing wind direction and observation of standing trees in nearby RMZs in recently harvested units helped determin no wind buffers were necessary.

RMZs were evaluated for Riparian Forest Restoration Strategy (RFRS) potential, were found to be on trajectory toward the Riparian Desired Future Condition (RDFC) and no action will be taken within the RMZs.

2) Will the project require any work over, in, or adjacent to (within 200 feet) to the described waters? If yes, please describe and attach available plans.
☐*No* ☒*Yes (See RMZ/WMZ table above and timber sale map available at DNR region office.)*
Description (include culverts):

Tailhold cables may be strung through the type 1, type 3 and type 4 RMZs; however, no timber will be yarded through them. Timber harvest will occur up to the RMZ buffers widths (see B.3.a.1.b.)

Due to safety and operational constraints felling and bucking may take place in or over type 5 streams. Logs may be yarded across the streams. The 30-foot Equipment Limitation Zone will be observed. Water bars or other mitigation measures will be installed if greater than 10% of the soil is exposed within the zone. Trees may be cut and left in place within RMZs for safety or operational needs.

3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.

None.

4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known. *(Include diversions for fish-passage culvert installation.)*
☒*No* ☐*Yes, description:*

5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.
☐*No* ☒*Yes, describe location:*

If tailhold cables are strung through type 1, type 3, or type 4 RMZs, then the activity of stringing up these cables would take place within the 100-year floodplain. However, no timber will be cut or yarded within the 100-year floodplain.

6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.
☐*No* ☒*Yes, type and volume:*

This proposal could possibly introduce minor amounts of sediment into the streams associated with this proposal during wet weather within or adjacent to the proposal area as a result of road building and harvest operation activity. The erosion control measures and operation procedures outlined in B.1.d.5. and B.1.h are expected to minimize sediment delivery.

7) Does the sub-basin contain soils or terrain susceptible to surface erosion and/or mass wasting? What is the potential for eroded material to enter surface water?

Yes. The potential for surface and/or mass erosion exists in the headwaters of the sub-basins, typically on tightly convergent slopes and headwalls with 65% slope or greater and/or where unstable soils are present. A majority of these sites occur near watercourses with deeply incised channels and steep headwall areas. A storm event could result in eroded material entering surface water.

The potential for eroded material to enter surface water based on this proposal is low due to erosion control measures that will be included in the proposal.

8) *Is there evidence of changes to the channels in the WAU and sub-basin(s) due to surface erosion or mass wasting (accelerated aggradations, erosion, decrease in large organic debris (LOD), change in channel dimensions)?*
☐*No* ☒*Yes, describe changes and possible causes:*

Channels have been altered due to high stream flows with accompanying sediment loads and probable large woody debris delivery. During the winters of 1996, 2007, and 2009, 100-year plus (estimated) precipitation events occurred. The storms set rainfall and flood level records in Southwest Washington and Northwestern Oregon. The events triggered many shallow mass-wasting events. Many stream channels were affected by these flood events. The full extent of these storms is not known.

9) *Could this proposal affect water quality based on the answers to the questions 1-8 above?*
☐*No* ☒*Yes, explain:*

This proposal could introduce minor amounts of sediment into the streams associated with this proposal during wet weather within or adjacent to the proposal area as a result of road building and harvest operation activity. The erosion control measures and operation procedures outlined in B.1.d.5. and B.1.h. are expected to minimize sediment delivery.

10) *What are the approximate road miles per square mile in the WAU and sub-basin(s)?*

WAU	Road Miles/ Miles^2
Upper Chehalis/ Cedar Creek	2.9
Sub-basin	**Road Miles/ Miles^2**
#3	3.7
#4	4.2
#7	3.8
#8	4.4

Are you aware of areas where forest roads or road ditches intercept sub-surface flow and deliver surface water to streams, rather than back to the forest floor?
☒*No* ☐*Yes, describe:*

11) *Is the proposal within a significant rain-on-snow (ROS) zone? If not,* ***STOP HERE*** *and go to question B-3-a-13 below. Use the WAU or sub-basin(s) for the ROS percentage questions below.*
☒*No* ☐*Yes, approximate percent of WAU in significant ROS zone.*
Approximate percent of sub-basin(s):

12) *If the proposal is within the significant ROS zone, what is the approximate percentage of the WAU or sub-basin(s) within the significant ROS zone (all ownerships) that is (are) rated as hydrologically mature?*

13) *Is there evidence of changes to channels associated with peak flows in the WAU or sub-basin(s)?*
☐*No* ☒*Yes, describe observations:*

Normally, there are few significant changes associated with peak flows in the WAU or sub-basins. During the winters of 1996, 2007, and 2009, 100-year precipitation events occurred. Many channels were altered during these events due to high stream flows.

14) *Based on your answers to questions B-3-a-10 through B-3-a-13 above, describe whether and how this proposal, in combination with other past, current, or reasonably foreseeable proposals in the WAU and sub-basin(s), may contribute to a peak flow impact.*

Past, current or reasonably foreseeable proposals may slightly change the timing, duration, and/or magnitude of peak flows and stream flows may increase slightly during low flow periods due to decreased transpiration and interception.

15) *Is there water resource (public, domestic, agricultural, hatchery, etc.), or area of slope instability, downstream or downslope of the proposed activity that could be affected by changes in surface water amounts, quality, or movements as a result of this proposal?*
☐*No* ☒*Yes, possible impacts:*

The Department of Ecology lists surface water rights for Shelton Creek, and other unnamed streams and springs downstream of the proposal area. The closest possible domestic intake is in Cedar Creek and is approximately 1.75 miles downstream of the proposal area. Changes in turbidity or volume and duration of water delivered downstream could affect users. However, due to mitigation measures that will be applied, this proposal will likely have minimal affect on the mentioned resources.

In Unit 1, there is a previous slump within the middle of the RMZ that stopped approximately 30 feet from where it originated. This slump did not reach the stream. A DNR geologist did a site visit and assessment of the area and determined there are no areas of slope instability. Due to the mitigation measures that will be applied and the 200 foot RMZ being a no harvest zone, it is unlikely this area will be impacted by changes in surface water amounts.

16) *Based on your answers to questions B-3-a-10 through B-3-a-15 above, note any protection measures addressing possible peak flow/flooding impacts.*

- **Type 1, 3 and 4 no harvest RMZs**
- **Retention trees (at least 8 trees per acre)**
- **The proposal's units are each less than the 100 acre maximum allowable size (U1 – 22 acres, U2 – 34 acres, U3 – 22 acres, U4 – 33 acres)**
- **Allowing green-up (regenerated stands that are either 4 ½ feet tall or 5 years of age) of**
- **adjacent stands**
- **See B.1.d.5. and B.1.h. for further protection measures**

b. Ground Water:

1) Will ground water be withdrawn, or will water be discharged to ground water? Give general description, purpose, and approximate quantities if known.

No.

2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.

Minor amounts of oil, fuel, and other lubricants may inadvertently be discharged to the ground as a result of heavy equipment use or mechanical failure. No lubricants will be disposed of on-site. All spills are required to be contained and cleaned-up. This proposed activity is expected to have no impact on ground water.

3) *Is there a water resource use (public, domestic, agricultural, hatchery, etc.), or area of slope instability, downstream or down slope of the proposed activity that could be affected by changes in groundwater amounts, timing, or movements as a result this proposal?*
☐*No* ☒*Yes, describe:*

The Department of Ecology lists ground water rights for various wells in the general vicinity. The closest well is approximately 1.75 miles downstream. There is also a dairy 3.3 miles downstream. The risks associated with this proposal to affect wells downstream by increasing the amount of water percolating through to the water table is very minimal due to the distance between the proposal area and the nearest downstream wells.

a) Note protection measures, if any.

No specific protection measures were incorporated into this proposal to protect these resources beyond those described in See B.1.d.5., and B.1.h.

c. Water Runoff (including storm water):

1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.

Storm water runoff from road surfaces and intercepted subsurface flow will be collected by roadside ditches and diverted onto the forest floor to allow infiltration. Ditch-outs and cross drain culverts will be installed and maintained to direct ditch water onto the forest floor.

2) Could waste materials enter ground or surface waters? If so, generally describe.

Waste materials, such as sediment or slash, may enter surface water.

a) Note protection measures, if any.

Slash that enters typed waters will be removed post harvest. No specific protection measures will be incorporated into this proposal to protect these resources beyond those described in B.1.d.5., B.1.h., B.3.a.2., and B.3.a.16.

d. Proposed measures to reduce or control surface, ground, and runoff water impacts, if any:

See surface water, ground water, and water runoff sections above, questions B.1.d.5., B.1.h., B.3.a.1.c., B.3.a.16., and B.3.c.2.a.

4. Plants

a. Check or circle types of vegetation found on the site:

☒deciduous tree: ☒alder, ☒maple, ☐aspen, ☐*cottonwood,* ☐*western larch,* ☐*birch,* ☐other:
☒evergreen tree: ☒*Douglas fir,* ☐*grand fir,* ☐*Pacific silver fir,* ☐*ponderosa pine,* ☐*lodgepole pine,* ☒*western hemlock,* ☐*mountain hemlock,* ☐*Englemann spruce,* ☐*Sitka spruce,* ☒*red cedar,* ☐*yellow cedar,* ☐*other*:
☒shrubs: ☐*huckleberry,* ☒*salmonberry,* ☒*salal,* ☒*other:* **Oregon grape**
☒grass
☐pasture
☐crop or grain
☒wet soil plants: ☐*cattail,* ☐*buttercup,* ☐*bullrush,* ☐*skunk cabbage,* ☒*devil's club,* ☐*other:*
☐water plants: ☐*water lily,* ☐*eelgrass,* ☐*milfoil,* ☐*other:*
☒other types of vegetation: **swordfern**
☐*plant communities of concern:*

b. What kind and amount of vegetation will be removed or altered? *(See answers to questions A-11-a, A-11-b, B-3-a-1-b and B-3-a-1-c. The following sub-questions merely supplement those answers.)*

All conifer and hardwood trees, except the wildlife leave trees, green recruitment trees and the vegetation within the RMZs, will be removed as part of this harvest proposal. Understory vegetation will be disturbed and/or reduced within the proposed harvest area as a result of timber felling, bucking, yarding and site prep operations. Most of the vegetation will re-establish within 2 – 3 years after forestry activities are completed.

1) Describe the species, age, and structural diversity of the timber types immediately adjacent to the removal area. *(See landscape/WAU and adjacency maps on the DNR website at:* http://www.dnr.wa.gov *under "SEPA Center.")*

Unit 1: To the north is 11 year-old Douglas-fir and 20 year-old Douglas-fir. To the east is 5 year-old Douglas-fir and 75 year-old Douglas-fir. To the south is 84 year-old Douglas-fir. To the west is 11-year-old Douglas-fir.

Unit 2: To the north is 4 year-old Douglas-fir and 69 year-old Douglas-fir. To the east is 5 year-old Douglas-fir. To the south is 5 year-old Douglas-fir and 19 year-old Douglas-fir. To the west is 67 year-old Douglas-fir.

Unit 3: To the north is 13 year-old Douglas-fir and 72 year-old Douglas-fir. To the east is 72 year-old Douglas-fir. To the south is 69 year-old Douglas-fir. To the west is 3 year-old and 16 year-old Douglas-fir.

Unit 4: To the north is 5 year-old Douglas-fir. To the east is 68 year-old Douglas-fir. To the south is 68 year-old Douglas-fir. To the west is 68 year-old Douglas-fir.

Second-growth stands immediately adjacent to the removal area consist of mature Douglas-fir in the dominant canopy position with occasional western hemlock and western redcedar occupying dominant, co-dominant or suppressed canopy positions. In some wetter areas such as riparian zones, red alder frequently holds dominant and co-dominant canopy positions.

Reproduction stands consists of a single cohort of relatively homogenous Douglas-fir with some western hemlock in co-dominant canopy positions. These stands typically have a high density of stems per acre and may be in the stem exclusion phase of development.

2) Retention tree plan:

A combination of Douglas-fir, western redcedar, bigleaf maple and red alder were left for green tree retention and snag recruitment. Reserve tree numbers were based on leaving eight trees per acre. Trees were left individually and in clumps. This type of leave tree pattern is conducive to a safe harvest operation, plus it distributes habitat throughout the proposal.

c. List threatened or endangered *plant* species known to be on or near the site.

None found in database search.

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

RMZ's along type 3 and 4 streams (and leave trees placed around type 5 streams), along with individual and clumped leave trees will preserve native vegetation and serve as a seed source for reestablishing forest vegetation. Within two years after harvest the site will be hand planted with conifer seedlings which will subsequently be surveyed and treated until they are free to grow from brush/woody plant competition.

Retention tree clumps are identified across the harvest area. Some clumps were selected for their species diversity of native flora. These clumps will provide a local seed source for native overstory and understory species. Some natural regeneration of native species will occur on site after harvest. Wildlife trees were left in areas to protect snags, large down logs, advanced regeneration, type 5 streams, and potentially unstable slopes. Trees with defects such as split or broken tops, dominant crowns, large diameters and large limbs were favored as leave trees to enhance wildlife potential.

5. Animal

a. Circle or check any birds animals *or unique habitats* which have been observed on or near the site or are known to be on or near the site:

birds: ☒hawk, ☐heron, ☐eagle, ☒songbirds, ☐*pigeon*, ☒other: **crow**
mammals: ☒deer, ☒bear, ☐elk, ☐beaver, ☒other: **squirrel**
fish: ☐bass, ☒salmon, ☒trout, ☐herring, ☐shellfish, ☐other:
unique habitats: ☐*talus slopes,* ☐*caves,* ☐*cliffs,* ☐*oak woodlands,* ☐*balds,* ☐*mineral springs*

b. List any threatened or endangered species known to be on or near the site *(include federal- and state-listed species).*

This proposal is located within the overlay of potential Bull Trout habitat. This proposal's protection of fish bearing streams is designed to protect any potential bull trout habitat present. Bull Trout habitat is protected under the Department of Natural Resources HCP's Riparian Strategies.

c. Is the site part of a migration route? If so, explain.
☒*Pacific flyway* ☐*Other migration route:* *Explain if any boxes checked:*

This proposal is located in the Pacific flyway. Migratory waterfowl use the Pacific flyway however, the area for this proposal is not generally the type of area used for resting or feeding by migratory waterfowl. While migrating through Pacific Northwest forests, many Neotropical birds are closely associated with riparian areas, cliffs, snags, and structurally unique trees. Riparian areas and special habitats are protected through implementation of DNR's Habitat Conservation Plan.

d. Proposed measures to preserve or enhance wildlife, if any:

By designing this sale to comply with the department's HCP, both wildlife and wildlife habitat will be preserved and enhanced. The unit design is also conducive to ungulate feeding patterns. Scattered and clumped leave trees allow raptor perching, feeding, and nesting and areas for neo-tropical migratory birds to use. Well engineered and constructed roads reduce potential water quality impacts for down-stream fish populations. Grass seeding exposed soil aids water quality and provides forage. Large diameter leave trees will enhance the wildlife habitat value of the future stand.

1) Note existing or proposed protection measures, if any, for the complete proposal described in question A-11.

- **Riparian habitat**
  - **No Harvest RMZ buffers on type 1, 3 and 4 streams**
  - **Equipment Limitation Zone on each side of type 5 streams**

- **Upland habitat**
  - **Cable systems on slopes over 35%**
  - **A minimum of 8 leave trees per acre were left in clumps**

6. Energy and Natural Resources

a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.

Not applicable.

b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.

Not applicable.

c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:

Not applicable.

7. Environmental Health

a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe.

Minimal hazards incidental to operation of heavy machinery such as the risk of fire or small amounts of oil and other lubricants may be accidentally discharged as a result of heavy equipment use.

1) Describe special emergency services that might be required.

Any spill that may be a threat to human health or the environment shall be reported immediately to the Department of Ecology and the Contract Administrator. Other spills shall be reported to the Contract Administrator. All spills are required to be contained and cleaned-up.

There are not any special emergency services required at this time. Pump trucks and/or pump trailers will be required on site during fire season.

2) Proposed measures to reduce or control environmental health hazards, if any:

Fuel tanks and other containers of hazardous materials shall be managed to prevent any drips, leaks or larger spills. Equipment seals, pressure lines, and other potential leak sources shall be maintained in good working condition to eliminate oil, hydraulic fluid, and other leaks.

Equipment maintenance activities, such as oil changes, shall be undertaken so that no oil or other hazardous materials reach the ground. Filters, batteries, and other equipment waste shall be deposited in barrels or otherwise temporarily stored to prevent the leaking of oil, acid, or other hazardous liquids onto the ground. No oil or lubricants will be disposed of on site.

Fire tools and equipment will be kept on site during fire season. The cessation of operations may occur during periods when the risk of fire is unacceptably high.

b. Noise

1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?

None.

2) What types and levels of noise would be created by or associated with the project on a short-term or long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from this site.

Minimal noise levels associated with logging operations and truck traffic. Noise will be increased during daylight hours generated from the operation of machinery and power tools. There should be no long-term impacts.

3) Proposed measures to reduce or control noise impacts, if any:

None.

8. Land and Shoreline Use

a. What is the current use of the site and adjacent properties? *(Site includes the complete proposal, e.g. rock pits and access roads.)*

The state land surrounding the units is managed for timber production by the DNR.

b. Has the site been used for agriculture? If so, describe.

No.

c. Describe any structures on the site.

None.

d. Will any structures be demolished? If so, what?

No.

e. What is the current zoning classification of the site?

General development 5.

f. What is the current comprehensive plan designation of the site?

General development 5.

g. If applicable, what is the current shoreline master program designation of the site?

Does not apply.

h. Has any part of the site been classified as an "environmentally sensitive" area? If so, specify.

No.

i. Approximately how many people would reside or work in the completed project?

None.

j. Approximately how many people would the completed project displace?

None.

k. Proposed measures to avoid or reduce displacement impacts, if any:

Does not apply.

l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:

None.

9. Housing

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.

None.

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.

None.

c. Proposed measures to reduce or control housing impacts, if any:

Does not apply.

10. Aesthetics

a. What is the tallest height of any proposed structure(s), not including antennas; what is the principle exterior building material(s) proposed?

Not applicable.

b. What views in the immediate vicinity would be altered or obstructed?

In the vicinity of the proposal, it will change from a stand of mature timber to a recent harvest with RMZs adjacent to the type 1, 3 and 4 streams and scattered leave trees clumps throughout. The view will then change to one of a young plantation after seedlings are planted and the new trees continue to grow.

1) *Is this proposal visible from a residential area, town, city, developed recreation site, or a scenic vista?*
☒ *No* ☐ *Yes, viewing location:*

2) *Is this proposal visible from a major transportation or designated scenic corridor (county road, state or interstate highway, US route, river, or Columbia Gorge SMA)?*
☒ *No* ☐ *Yes, scenic corridor name:*

3) *How will this proposal affect any views described in 1) or 2) above?*

Does not apply.

c. Proposed measures to reduce or control aesthetic impacts, if any:

None.

11. Light and Glare

a. What type of light or glare will the proposal produce? What time of day would it mainly occur?

Does not apply.

b. Could light or glare from the finished project be a safety hazard or interfere with views?

Does not apply.

c. What existing off-site sources of light or glare may affect your proposal?

Does not apply.

d. Proposed measures to reduce or control light and glare impacts, if any:

Does not apply.

12. Recreation

a. What designated and informal recreational opportunities are in the immediate vicinity?

Informal recreational activities include hunting, berry picking and sightseeing.

b. Would the proposed project displace any existing recreational uses? If so, describe:

Informal recreational activities may be temporarily displaced during logging operations.

c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:

None at this time.

13. Historic and Cultural Preservation

a. Are there any places or objects listed on, or proposed for national, state, or local preservation registers known to be on or next to the site? If so, generally describe.

No.

b. Generally describe any landmarks or evidence of historic, archaeological, scientific, or cultural importance known to be on or next to the site.

None.

c. Proposed measures to reduce or control impacts, if any:
(Include all meetings or consultations with tribes, archaeologists, anthropologists or other authorities.)

2) This proposal was reviewed for archeological/historic resources using DNR's Planning and Tracking database and USGS and GLO maps. In the event that any unknown archaeological resources are encountered, ground disturbing activities would be halted and an Agency Archaeologist will be contacted to survey the site and develop a Site Protection Plan.

14. Transportation

a. Identify public streets and highways serving the site, and describe proposed access to the existing street system. Show on site plans, if any.

Hauling will occur on forest roads to SR-12.

1) Is it likely that this proposal will contribute to an existing safety, noise, dust, maintenance, or other transportation impact problem(s)?

No.

b. Is site currently served by public transit? If not, what is the approximate distance to the nearest transit stop?

Does not apply.

c. How many parking spaces would the completed project have? How many would the project eliminate?

Does not apply.

d. Will the proposal require any new roads or streets, or improvements to existing roads or streets, not including driveways? If so, generally describe (indicate whether public or private).

Yes, see A.11.c.

l) How does this proposal impact the overall transportation system/circulation in the surrounding area, if at all?

This proposal expands the network of DNR forest roads in the area.

e. Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.

No.

f. How many vehicular trips per day would be generated by the completed project? If known, indicate when peak volumes would occur.

Approximately ten to fifteen log truck trips per day and two to four administrative trips per week will be generated until the completion of timber harvest. After the project is complete, the number of vehicular trips will return to present levels.

g. Proposed measures to reduce or control transportation impacts, if any:

None.

15. Public Services

a. Would the project result in an increased need for public services (for example: fire protection, police protection, health care, schools, other)? If so, generally describe.

No.

b. Proposed measures to reduce or control direct impacts on public services, if any.

None.

16. Utilities

a. Circle utilities currently available at the site: electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other.

None.

b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.

None.

C. **SIGNATURE**

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Completed by: for Jim Schindler Donelle Mahan PSF — Forester 1 (Title) — Date: 5/7/10

Reviewed by: Marcus A. [illegible] — Proprietary Mgr. (Title) — Date: 5/7/10

Comments: _____